

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

UTILITY PATENT APPLICATION TRANSMITTAL (Only for new nonprovisional applications under 37 CFR 1.53(b))	Attorney Docket No.	416272003700
	First Inventor	Marc K. HELLERSTEIN
	Title	BIOCHEMICAL METHODS FOR MEASURING METABOLIC FITNESS OF TISSUES OR WHOLE ORGANISMS
	Express Mail Label No.	EL 990 374 754 US

APPLICATION ELEMENTS See MPEP chapter 600 concerning utility patent application contents.	ADDRESS TO: MS Patent Application Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450
---	---

1. <input checked="" type="checkbox"/> Fee Transmittal Form (e.g., PTO/SB/17) (Submit an original, and a duplicate for fee processing) 2. <input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. 3. <input checked="" type="checkbox"/> Specification [Total Pages 46] (preferred arrangement set forth below) - Descriptive title of the invention - Cross Reference to Related Applications - Statement Regarding Fed sponsored R & D - Reference to sequence listing, a table, or a computer program listing appendix - Background of the Invention - Brief Summary of the Invention - Brief Description of the Drawings (if filed) - Detailed Description - Claim(s) - Abstract of the Disclosure 4. <input checked="" type="checkbox"/> Drawing(s) (35 U.S.C. 113) [Total Sheets 10] 5. Oath or Declaration "UNSIGNED" [Total Sheets 2] a. <input type="checkbox"/> Newly executed (original or copy) UNSIGNED b. <input type="checkbox"/> Copy from a prior application (37 CFR 1.63(d)) (for continuation/divisional with Box 18 completed) i. <input type="checkbox"/> DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b). 6. <input checked="" type="checkbox"/> Application Data Sheet. See 37 CFR 1.76 - 2 pgs	7. <input type="checkbox"/> CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix) 8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary) a. <input type="checkbox"/> Computer Readable Form (CRF) b. Specification Sequence Listing on: i. <input type="checkbox"/> CD-ROM or CD-R (2 copies); or ii. <input type="checkbox"/> Paper c. <input type="checkbox"/> Statements verifying identity of above copies ACCOMPANYING APPLICATIONS PARTS 9. <input type="checkbox"/> Assignment Papers (cover sheet & document(s)) 10. <input type="checkbox"/> 37 CFR 3.73(b) Statement [] Power of (when there is an assignee) Attorney 11. <input type="checkbox"/> English Translation Document (if applicable) 12. <input type="checkbox"/> Information Disclosure [] Copies of IDS Statement (IDS/PTO-1449 Citations 13. <input type="checkbox"/> Preliminary Amendment 14. <input checked="" type="checkbox"/> Return Receipt Postcard (MPEP 503) (Should be specifically itemized) 15. <input type="checkbox"/> Certified Copy of Priority Document(s) (if foreign priority is claimed) 16. <input type="checkbox"/> Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent. 17. <input type="checkbox"/> Other:
---	--

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.:

Prior application information: Examiner

Art Unit:

For CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.


19. CORRESPONDENCE ADDRESS

<input checked="" type="checkbox"/> Customer Number:	20872	OR	<input type="checkbox"/> Correspondence address below
Name			
Address			
City	State	Zip Code	
Country	Telephone	Fax	
Name (Print/Type)	TIMOTHY A. WORRALL	Registration No. (Attorney/Agent)	54,552
Signature		Date	September 16, 2003

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as Express Mail, Airbill No.
EL 990 374 754 US, in an envelope addressed to: **MS Patent Application**, Commissioner for Patents, P.O. Box 1450,
 Alexandria, VA 22313-1450, on the date shown below.

Dat d: S pt mb r 16, 2003 Signature: (Lilia Ols n)

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

FEE TRANSMITTAL for FY 2003 <small>Patent fees are subject to annual revision.</small>				Complete if Known																																																																																																																																																																																																																																															
<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27				Application Number		Not Yet Assigned																																																																																																																																																																																																																																													
				Filing Date		Concurrently Herewith																																																																																																																																																																																																																																													
				First Named Inventor		Marc K. HELLERSTEIN																																																																																																																																																																																																																																													
				Examiner Name		Not Yet Assigned																																																																																																																																																																																																																																													
				Group Art Unit		Not Yet Assigned																																																																																																																																																																																																																																													
TOTAL AMOUNT OF PAYMENT (\$) 885.00				Attorney Docket No.		416272003700																																																																																																																																																																																																																																													
METHOD OF PAYMENT (check all that apply)				FEE CALCULATION (continued)																																																																																																																																																																																																																																															
<input type="checkbox"/> Check <input type="checkbox"/> Credit Card <input type="checkbox"/> Money Order <input checked="" type="checkbox"/> Other <input type="checkbox"/> None <input checked="" type="checkbox"/> Deposit Account Deposit Account Number: 03-1952 Deposit Account Name: Morrison & Foerster LLP The Commissioner is hereby authorized to: (check all that apply) <input checked="" type="checkbox"/> Charge fee(s) indicated below <input checked="" type="checkbox"/> Credit any overpayments <input type="checkbox"/> Charge any additional fee(s) during the pendency of this application <input type="checkbox"/> Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.				3. ADDITIONAL FEES																																																																																																																																																																																																																																															
1. BASIC FILING FEE <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> <th rowspan="2">Fee Paid</th> </tr> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> </tr> </thead> <tbody> <tr> <td>1001</td> <td>750</td> <td>2001</td> <td>375</td> <td>Utility filing fee</td> <td>375.00</td> </tr> <tr> <td>1002</td> <td>330</td> <td>2002</td> <td>165</td> <td>Design filing fee</td> <td></td> </tr> <tr> <td>1003</td> <td>520</td> <td>2003</td> <td>260</td> <td>Plant filing fee</td> <td></td> </tr> <tr> <td>1004</td> <td>750</td> <td>2004</td> <td>375</td> <td>Reissue filing fee</td> <td></td> </tr> <tr> <td>1005</td> <td>160</td> <td>2005</td> <td>80</td> <td>Provisional filing fee</td> <td></td> </tr> <tr> <td colspan="5" style="text-align: right;">SUBTOTAL (1)</td> <td>375.00</td> </tr> </tbody> </table>				Large Entity		Small Entity		Fee Description	Fee Paid	Fee Code	Fee (\$)	Fee Code	Fee (\$)	1001	750	2001	375	Utility filing fee	375.00	1002	330	2002	165	Design filing fee		1003	520	2003	260	Plant filing fee		1004	750	2004	375	Reissue filing fee		1005	160	2005	80	Provisional filing fee		SUBTOTAL (1)					375.00	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> <th rowspan="2">Fee Paid</th> </tr> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> </tr> </thead> <tbody> <tr><td>1051</td><td>130</td><td>2051</td><td>65</td><td>Surcharge - late filing fee or oath</td><td></td></tr> <tr><td>1052</td><td>50</td><td>2052</td><td>25</td><td>Surcharge - late provisional filing fee or cover sheet</td><td></td></tr> <tr><td>1053</td><td>130</td><td>1053</td><td>130</td><td>Non-English specification</td><td></td></tr> <tr><td>1812</td><td>2,520</td><td>1812</td><td>2,520</td><td>For filing a request for ex parte reexamination</td><td></td></tr> <tr><td>1804</td><td>920*</td><td>1804</td><td>920*</td><td>Requesting publication of SIR prior to Examiner action</td><td></td></tr> <tr><td>1805</td><td>1,840*</td><td>1805</td><td>1,840*</td><td>Requesting publication of SIR after Examiner action</td><td></td></tr> <tr><td>1251</td><td>110</td><td>2251</td><td>55</td><td>Extension for reply within first month</td><td></td></tr> <tr><td>1252</td><td>410</td><td>2252</td><td>205</td><td>Extension for reply within second month</td><td></td></tr> <tr><td>1253</td><td>930</td><td>2253</td><td>465</td><td>Extension for reply within third month</td><td></td></tr> <tr><td>1254</td><td>1,450</td><td>2254</td><td>725</td><td>Extension for reply within fourth month</td><td></td></tr> <tr><td>1255</td><td>1,970</td><td>2255</td><td>985</td><td>Extension for reply within fifth month</td><td></td></tr> <tr><td>1401</td><td>320</td><td>2401</td><td>160</td><td>Notice of Appeal</td><td></td></tr> <tr><td>1402</td><td>320</td><td>2402</td><td>160</td><td>Filing a brief in support of an appeal</td><td></td></tr> <tr><td>1403</td><td>280</td><td>2403</td><td>140</td><td>Request for oral hearing</td><td></td></tr> <tr><td>1451</td><td>1,510</td><td>1451</td><td>1,510</td><td>Petition to institute a public use proceeding</td><td></td></tr> <tr><td>1452</td><td>110</td><td>2452</td><td>55</td><td>Petition to revive - unavoidable</td><td></td></tr> <tr><td>1453</td><td>1,300</td><td>2453</td><td>650</td><td>Petition to revive - unintentional</td><td></td></tr> <tr><td>1501</td><td>1,300</td><td>2501</td><td>650</td><td>Utility issue fee (or reissue)</td><td></td></tr> <tr><td>1502</td><td>470</td><td>2502</td><td>235</td><td>Design issue fee</td><td></td></tr> <tr><td>1503</td><td>630</td><td>2503</td><td>315</td><td>Plant issue fee</td><td></td></tr> <tr><td>1460</td><td>130</td><td>1460</td><td>130</td><td>Petitions to the Commissioner</td><td></td></tr> <tr><td>1807</td><td>50</td><td>1807</td><td>50</td><td>Processing fee under 37 CFR 1.17(q)</td><td></td></tr> <tr><td>1806</td><td>180</td><td>1806</td><td>180</td><td>Submission of Information Disclosure Stmt</td><td></td></tr> <tr><td>8021</td><td>40</td><td>8021</td><td>40</td><td>Recording each patent assignment per property (times number of properties)</td><td></td></tr> <tr><td>1809</td><td>750</td><td>2809</td><td>375</td><td>Filing a submission after final rejection (37 CFR 1.129(a))</td><td></td></tr> <tr><td>1810</td><td>750</td><td>2810</td><td>375</td><td>For each additional invention to be examined (37CFR 1.129(b))</td><td></td></tr> <tr><td>1801</td><td>750</td><td>2801</td><td>375</td><td>Request for Continued Examination (RCE)</td><td></td></tr> <tr><td>1802</td><td>900</td><td>1802</td><td>900</td><td>Request for expedited examination of a design application</td><td></td></tr> <tr> <td colspan="5">Other fee (specify)</td> <td></td> </tr> <tr> <td colspan="5" style="text-align: right;">SUBTOTAL (2)</td> <td>510.00</td> </tr> </tbody> </table>				Large Entity		Small Entity		Fee Description	Fee Paid	Fee Code	Fee (\$)	Fee Code	Fee (\$)	1051	130	2051	65	Surcharge - late filing fee or oath		1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet		1053	130	1053	130	Non-English specification		1812	2,520	1812	2,520	For filing a request for ex parte reexamination		1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action		1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action		1251	110	2251	55	Extension for reply within first month		1252	410	2252	205	Extension for reply within second month		1253	930	2253	465	Extension for reply within third month		1254	1,450	2254	725	Extension for reply within fourth month		1255	1,970	2255	985	Extension for reply within fifth month		1401	320	2401	160	Notice of Appeal		1402	320	2402	160	Filing a brief in support of an appeal		1403	280	2403	140	Request for oral hearing		1451	1,510	1451	1,510	Petition to institute a public use proceeding		1452	110	2452	55	Petition to revive - unavoidable		1453	1,300	2453	650	Petition to revive - unintentional		1501	1,300	2501	650	Utility issue fee (or reissue)		1502	470	2502	235	Design issue fee		1503	630	2503	315	Plant issue fee		1460	130	1460	130	Petitions to the Commissioner		1807	50	1807	50	Processing fee under 37 CFR 1.17(q)		1806	180	1806	180	Submission of Information Disclosure Stmt		8021	40	8021	40	Recording each patent assignment per property (times number of properties)		1809	750	2809	375	Filing a submission after final rejection (37 CFR 1.129(a))		1810	750	2810	375	For each additional invention to be examined (37CFR 1.129(b))		1801	750	2801	375	Request for Continued Examination (RCE)		1802	900	1802	900	Request for expedited examination of a design application		Other fee (specify)						SUBTOTAL (2)					510.00
Large Entity		Small Entity		Fee Description	Fee Paid																																																																																																																																																																																																																																														
Fee Code	Fee (\$)	Fee Code	Fee (\$)																																																																																																																																																																																																																																																
1001	750	2001	375	Utility filing fee	375.00																																																																																																																																																																																																																																														
1002	330	2002	165	Design filing fee																																																																																																																																																																																																																																															
1003	520	2003	260	Plant filing fee																																																																																																																																																																																																																																															
1004	750	2004	375	Reissue filing fee																																																																																																																																																																																																																																															
1005	160	2005	80	Provisional filing fee																																																																																																																																																																																																																																															
SUBTOTAL (1)					375.00																																																																																																																																																																																																																																														
Large Entity		Small Entity		Fee Description	Fee Paid																																																																																																																																																																																																																																														
Fee Code	Fee (\$)	Fee Code	Fee (\$)																																																																																																																																																																																																																																																
1051	130	2051	65	Surcharge - late filing fee or oath																																																																																																																																																																																																																																															
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet																																																																																																																																																																																																																																															
1053	130	1053	130	Non-English specification																																																																																																																																																																																																																																															
1812	2,520	1812	2,520	For filing a request for ex parte reexamination																																																																																																																																																																																																																																															
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action																																																																																																																																																																																																																																															
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action																																																																																																																																																																																																																																															
1251	110	2251	55	Extension for reply within first month																																																																																																																																																																																																																																															
1252	410	2252	205	Extension for reply within second month																																																																																																																																																																																																																																															
1253	930	2253	465	Extension for reply within third month																																																																																																																																																																																																																																															
1254	1,450	2254	725	Extension for reply within fourth month																																																																																																																																																																																																																																															
1255	1,970	2255	985	Extension for reply within fifth month																																																																																																																																																																																																																																															
1401	320	2401	160	Notice of Appeal																																																																																																																																																																																																																																															
1402	320	2402	160	Filing a brief in support of an appeal																																																																																																																																																																																																																																															
1403	280	2403	140	Request for oral hearing																																																																																																																																																																																																																																															
1451	1,510	1451	1,510	Petition to institute a public use proceeding																																																																																																																																																																																																																																															
1452	110	2452	55	Petition to revive - unavoidable																																																																																																																																																																																																																																															
1453	1,300	2453	650	Petition to revive - unintentional																																																																																																																																																																																																																																															
1501	1,300	2501	650	Utility issue fee (or reissue)																																																																																																																																																																																																																																															
1502	470	2502	235	Design issue fee																																																																																																																																																																																																																																															
1503	630	2503	315	Plant issue fee																																																																																																																																																																																																																																															
1460	130	1460	130	Petitions to the Commissioner																																																																																																																																																																																																																																															
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)																																																																																																																																																																																																																																															
1806	180	1806	180	Submission of Information Disclosure Stmt																																																																																																																																																																																																																																															
8021	40	8021	40	Recording each patent assignment per property (times number of properties)																																																																																																																																																																																																																																															
1809	750	2809	375	Filing a submission after final rejection (37 CFR 1.129(a))																																																																																																																																																																																																																																															
1810	750	2810	375	For each additional invention to be examined (37CFR 1.129(b))																																																																																																																																																																																																																																															
1801	750	2801	375	Request for Continued Examination (RCE)																																																																																																																																																																																																																																															
1802	900	1802	900	Request for expedited examination of a design application																																																																																																																																																																																																																																															
Other fee (specify)																																																																																																																																																																																																																																																			
SUBTOTAL (2)					510.00																																																																																																																																																																																																																																														
2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Total Claims</td> <td>58</td> <td>-20** =</td> <td>38</td> <td>x</td> <td>9</td> <td>=</td> <td>342.00</td> </tr> <tr> <td>Independent Claims</td> <td>7</td> <td>-3** =</td> <td>4</td> <td>x</td> <td>42</td> <td>=</td> <td>168.00</td> </tr> <tr> <td>Multiple Dependent</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>=</td> <td></td> </tr> </table>				Total Claims	58	-20** =	38	x	9	=	342.00	Independent Claims	7	-3** =	4	x	42	=	168.00	Multiple Dependent						=		3. SUBTOTAL (3) (\$) 0.00																																																																																																																																																																																																																							
Total Claims	58	-20** =	38	x	9	=	342.00																																																																																																																																																																																																																																												
Independent Claims	7	-3** =	4	x	42	=	168.00																																																																																																																																																																																																																																												
Multiple Dependent						=																																																																																																																																																																																																																																													
SUBMITTED BY Name (Print/Type): TIMOTHY A. WORRALL Signature: 				Complete (if applicable) Registration No. (Attorney/Agent): 54,552 Telephone: (415) 268-7151 Date: September 16, 2003																																																																																																																																																																																																																																															